

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
RUI XIE, et al.) : Examiner: Sergent, R.A.
Application No.: 09/919,994) : Group Art Unit: 1711
Filed: August 2, 2001) : Confirmation No.: 8016
For: HIGH PERFORMANCE POLYURETHANE) :
ELASTOMERS FROM MDI PREPOLYMERS WITH)
REDUCED CONTENT OF FREE MDI MONOMER) : August 19, 2008

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR PRE-APPEAL CONFERENCE

Sir:

In response to the July 9, 2008 Final Office Action, and along with the accompanying Notice of Appeal, Applicants respectively request a pre-appeal conference to withdraw the rejections in the outstanding Final Office Action.

Independent Claim 34 and dependent Claims 35-44 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,703,193 to Rosenberg, *et al.* (“Rosenberg”). This rejection is improper because Rosenberg fails to teach every element of the claim.

Independent Claim 34 recites a process for “reducing the amount of residual diphenylmethane diisocyanate monomer in a polyurethane prepolymer product *comprising* the steps of” *inter alia* “adding at least one polyol to a stoichiometric excess of a dissolved diphenylmethane diisocyanate monomer in a solution at an NCO:OH ratio in the range of from about 2:1 to 20:1, wherein the solution comprises the diphenylmethane diisocyanate monomer and *one or more inert solvents consisting of solvents having a boiling point about 1°C to about 100°C below the boiling point of the diphenylmethane diisocyanate monomer at a pressure of 10 torr.*” (Emphasis Added). The Office Action has not cited any portion of

Rosenberg or any other reference for teaching that the solvents are limited to only those having a lower boiling point as claimed. Instead, the Office Action alleges that:

[A]pplicants' 'comprising' language causes the claims to be open to the inclusion of additional components and processing steps, including the use of the argued additional solvent of [Rosenberg]. It is by no means clear that the argued 'consisting of' language is adequate to exclude the argued solvents from the full scope of the claim.

See Office Action, page 3. Without this interpretation of Claim 34, the Office Action cannot cite Rosenberg or any other reference for teaching every element of Claim 34. The allegations by the Office Action regarding the interpretation of Claim 34 are contrary to Federal Circuit law and with a proper interpretation of Claim 34 Rosenberg fails to teach every element of Claim 34.

It is widely understood that the Examiner shall give the claims the "broadest reasonable interpretation" during prosecution. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005). This interpretation must be *reasonable*, especially when the claim narrows an element using the phrase "consisting of." When the phrase "consisting of" appears in a clause of the body of a claim and the transitional phrase "comprises" is used in the preamble, the exclusion effect of "consisting of" limits only the element set forth in that clause and not other elements from the claim as a whole. *See Mannesmann Demag Corp. v. Engineered Metal Products Co.*, 793 F.2d 1279 (Fed. Cir. 1986). Interpreting a claim with both "comprising" and "consisting of" to include elements that are excluded by the phrase "consisting of" is wholly inconsistent with *Mannesmann*. *See Berenter v. Quigg*, 737 F.Supp. 5, 7 (D.D.C. 1988). In *Berenter*, the preamble's transitional phrase "comprising" did not allow for including elements excluded by the phrase "consisting of" in the body of the claim. *Id.* ("An additional step that allows the use of the pesticide in an area other than the first habitat is inconsistent with the plaintiff's claim.") The Federal Circuit has maintained this claim interpretation from *Mannesmann*. *See In re Crish*, 393 F.3d 1253, 1257 (Fed. Cir. 2004) ("The reasonable interpretation of the claims containing both of the terms 'comprising' and 'consists' is that the term 'consists' limits the 'said portion' language to the subsequently recited numbered nucleotides, but the earlier term 'comprising' means that the claim can include that portion plus other nucleotides."). The Federal Circuit affirmed the anticipated rejection in *Crish* because the applicant argued that the phrase "consisting of" limited other

elements of the claims, contrary to the holding of *Mannasmann*. Thus, in summary, the phrase “consisting of” as applied to an element limits only that element and the transitional phrase “comprising” cannot be used to include elements excluded by the phrase “consisting of.”

The Federal Circuit also has held that while the transitional phrase “comprising” raises a presumption that the list of elements is nonexclusive, the phrase is not “a weasel word with which to abrogate claim limitations.” *Spectrum Int'l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1380 (Fed. Cir. 1998). Such a presumption raised by the transitional phrase “comprising” cannot be used to give every element in the claim an open-ended meaning, especially when the applicant narrows a claim element. *Dippin' Dots v. Mosey*, 476 F.3d 1337, 1343 (Fed. Cir. 2007). Thus, the “broadest reasonable interpretation” of a claim during prosecution cannot be so broad as to exceed the scope of a claim, especially when a claim element has been narrowed.

Applicants have amended the claims during prosecution to add the phrase “consisting of” to limit the solvents to those having “a boiling point about 1°C to about 100°C below the boiling point of the diphenylmethane diisocyanate monomer at a pressure of 10 torr.” Following *Mannasmann*, Claim 34 limits the solvents through the phrase “consisting of” but not other elements of the claim. Under the claim interpretation holdings of the Federal Circuit recited above, it is not reasonable to interpret Claim 34 to include additional solvents as the Examiner has done. Especially, it is unreasonable to include additional solvents that are specifically excluded by the phrase “consisting of” that clearly identifies and limits the scope of Claim 34. Otherwise, such an interpretation would abrogate claim limitations and would be unreasonably broad, going beyond what the Applicants are clearly claiming in Claim 34. Applicants are clearly claiming only solvents having a lower boiling point and have narrowed the claims accordingly. Thus, the “broadest reasonable interpretation” of Claim 34 must limit the solvents to those specifically recited in Claim 34. Therefore, based on this proper claim interpretation, Rosenberg fails to teach every element of independent Claim 34, Claim 34 is patentable over Rosenberg and the rejection should be withdrawn.

The Examiner further alleges that Rosenberg “makes clear that the solvents may be added at the start of the prepolymer synthesis or any time during reaction prior to distillation (see column 6, lines 13-15, 42, and 43).” (See Office Action, page 3). This allegation is

irrelevant to the claim interpretation of Claim 34. As stated above, Claim 34 has been amended to specifically exclude all other solvents other than those with lower boiling points, and it is inconsistent with the clear meaning of Claim 34 to add another solvent as alleged by the Examiner. Thus, regardless of what Rosenberg teaches, Claim 34 has clearly narrowed the solvents as stated above. Further, Claim 34 states that “adding at least one polyol to a stoichiometric excess of a dissolved diphenylmethane diisocyanate monomer *in a solution* at an NCO:OH ratio in the range of from about 2:1 to 20:1, wherein the solution comprises the diphenylmethane diisocyanate monomer and one or more inert solvents consisting of solvents having a boiling point about 1°C to about 100°C below the boiling point of the diphenylmethane diisocyanate monomer at a pressure of 10 torr,” and no matter when the solvent is added the solution still must have solvents consisting of the lower boiling solvents. Adding high boiling points solvents as taught by Rosenberg at any point in the process, as alleged by the Examiner, would still be contrary to Claim 34’s solvents which are clearly limited to only solvents having a lower boiling point. As stated above, based on the proper claim interpretation supported by Federal Circuit law, Rosenberg fails to teach every element of independent Claim 34 and the rejection should be withdrawn.

As indicated above, dependent Claims 35-44 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rosenberg. Dependent Claim 45 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosenberg in view of U.S. Patent No. 4,624,996 to Rizk, et al. or U.S. Patent No. 4,101,473 to Lander. Dependent Claims 35-45 contain all the limitations of independent Claim 34 from which they depend and thus are patentable over the cited reference for at least the same reasons as independent Claim 34.

In view of the above arguments, the Final Office Action is improper and the rejection should be withdrawn.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3536. All correspondence should continue to be directed to the below-listed address.

Respectfully submitted,

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